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EXAMINER

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NOTIFICATION DATE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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DETAILED ACTION

1. This action is responsive to the Applicant's response filed 4/23/2010.

As indicated in Applicant's response, no claims have been amended. Claims 1, 5-11, 15-21 are pending in the office action.

Claims Rejections – 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-11, 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C, 'XML Path Language (XPath)' and 'XSL Transformation (XSLT) Version 1.0; W3C Recommendation 16 November 1999, respectively < <http://www.w3.org/TR/1999/REC-xpath-19991116> > and < <http://www.w3.org/TR/xslt> > (hereinafter W3C – submitted in previous Office Action)

As per claim 1, W3C discloses a computer-implemented method of cell-based data processing that facilitates the execution of computer programming code by a computer system, the method comprising:

receiving as input computer code a data processing specification comprising a plurality of cells (e.g. source tree, set of template rules, template instantiated for a particular source element – Introduction 1 - pg. 4 – Note: XSLT processor treating a source document as a tree of nodes with mapping node with template reads on receiving data specification specifications having cells – see sec. 3: Data model; sec. 5 pg. 18), wherein each cell comprises a formula specifying

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an action or computation to perform (e.g. templates rules, *xsl: template match = ... xsl:apply-template select= ...>* – sec. 5.4 pg 21-22; sec. 7.6.1, pg. 36) when the cell is executed, and one or more attributes referencing other cells (sec 11.2—11. 6, pg. 50-51), wherein the formula of a first cell may reference a value of a second cell (e.g. *<xsl:template match = “person”... value-of select=@given-name; <xsl: template match= person ... value-of select=”given name”* – sec. 7.6.1, 7.6.2 pg. 36-37);

wherein each cell is delineated by a beginning and ending tag (e.g. sec. 7.6.1 pg. 36; sec 11.6, pg. 51-52, bottom), wherein one of the cells is reserved as an output cell for outputting a result of the processing (*xsl: output, xsl: output method* – pg. 7; chp. 16.1, 16.2 pg. 64-68; *xsl:output* pg. 75);

parsing the specification to determine an interdependency of the plurality of cells and generating and storing a graph of the interdependency as an execution flow (e.g. *source tree* – Introduction 1, pg. 4 – Note: tree processing – see *match pattern... source nodes to which the rule applies, processes its immediate children, processed in document order* - sec. 5.3, 5.4 pg. 21-22 respecting order of instantiating templates from analysis of source tree to create a result tree via matching one node source into a template rule reads on parsing and generating graph of interdependency – bottom pg. 4; sec. 2.1-2.5 pg. 6-10); and

executing the specification in accordance with the execution flow, wherein the executing comprises evaluating the formula of each cell in the execution flow (e.g. sec. 7.6.1, 7.6.2 pg. 36-37; sec. 2.1-2.5 pg. 4-10; sec. 5.3, 5.4 – Note: processing match and analyzing node dependency and pattern correctness from source to generate proper template constructs leading to a output

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tree **reads on** executing in accordance with execution flow of tree source) and generating an output result (result tree – Introduction 1 pg. 4; sec. 11.1 pg. 48; *result tree* - sec. 7 pg.27-34).

wherein each cell is interlocked with at least one other cell through the formula or attribute of each cell (sec. 7.6.1, 7.6.2 pg. 36-37 - Note: computing a value - value of select="given name" -- in one cell so that result is referenced – see @given name - in another cell reads on interlocked aspect between cells related by the formula – value-of select)

W3C does not explicitly disclose graph of interdependency as a directed graph. W3C discloses parsing to determine nodes in terms of their attributes, syntax, content relationship with respect to forward compatibility among style-sheet descendant with respect to top level (see sec. 2.2 →2.5 pg. 8-12), and for a list of source nodes, creating result tree has to be based on building in the order of the source nodes (e.g. list of source nodes appending each member of the list in order – sec 5.1, pg. 18), thus, the concept of traversing a tree with direction is conveyed. In view of such tree directional flow analysis or ordered result tree building, it would have been obvious for one skill in the art at the time the invention was made to implement the “source tree” (or graph of interdependency) as supporting the analysis by W3C so that the generated tree implicate a directional layout of interdependency of nodes represented source document, because traversing the dependency tree in such direction would support the above syntactic compatibility of children with respect to a upper layer node, compatibility needed to be resolved prior to generating a result tree.

As per claim 5, W3C discloses wherein the first cell has a first attribute referencing a second attribute of said second cell (sec 11.6, pg. 51-52, bottom; *template match ... select value-of* - sec. 7.6.1, 7.6.2 pg. 36-37; sec 7.7, pg. 38).

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As per claim 6, W3C discloses wherein said second data processing cell specification comprises a reserved mnemonic for providing input (sec 7.6.2: `$image-dir ; {size/@width}` pg. 37; `item[position() = $n]`, pg. 49) to the data processing specified by the data processing specification.

As per claim 7, W3C discloses wherein said first data processing cell specification is a reserved output cell specification specifying output of the data processing specified by the data processing specification (*xsl: output*, *xsl: output method* – pg. 7; chp. 16.1, 16.2 pg. 64-68; *xsl:output* pg. 75).

As per claim 8, W3C discloses wherein said second data processing cell specification comprises a conditionally executed formula (e.g. `<xsl: if... />` pg. 74; `<xsl: otherwise ... />` – pg. 75).

As per claims 9-10, W3C discloses wherein said data processing specification further includes one or more global attributes (e.g. *xsl: stylesheet version = "1.0"* *xmlns:xsl="http://... xmlns="http://www.w3.org/1999... /strict">* pg. 7, 9) specifying one or more global processing characteristics for the specified data processing; wherein said one or more global attributes include a global attribute specifying a format for providing the specified data processing with an HTTP request (e.g. `<xsl: stylesheet version="1.0" xmlns=xsl="http:// ... /strict">` pg. 83).

As per claim 11, W3C discloses an apparatus comprising:

at least one storage unit having stored thereon programming instructions that are configured to be executed by a computer processor and designed to:

receive as input computer code a data processing specification comprising a plurality of cells, wherein each cell comprises a formula specifying an action or computation (refer to claim

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1) to perform when the cell is executed, and one or more attributes referencing other cells, wherein the formula of a first cell may reference a value of a second cell (refer to claim 1);

wherein each cell is delineated by a beginning and ending tag (refer to claim 1), and one of the cells is reserved as an output cell for outputting a result of the processing (refer to claim 1);

parse the specification to determine an interdependency of the plurality of cells and generating and storing a graph of the interdependency as an execution flow (refer to claim 1); and

execute the computer code of the specification in accordance with the execution flow, wherein the executing comprises evaluating the formula of each cell in the execution flow and generating an output result (refer to claim 1);

wherein each cell is interlocked with at least one other cell through the formula or attribute of each cell (refer to claim 1); and

at least one processor coupled to said at least one storage unit to execute (sec 16: XSLT processor, output pg. 64-69) said programming instructions.

W3C does not explicitly disclose graph of interdependency as a directed graph; but this 'directed graph' limitation has been addressed in claim 1.

As per claims 15-20, refer to claims 5-10, respectively.

As per claim 21, W3C discloses computer with a memory having stored thereon instructions that when executed cause to the computer to implement data processing comprising:

means for receiving a data processing specification comprising a plurality of cells, wherein each cell comprises a formula specifying an action or computation (refer to claim 1) to

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perform when the cell is executed, and one or more attributes referencing other cells, wherein the formula of a first cell may reference a value of a second cell (refer to claim 1);

wherein each cell is delineated by a beginning and ending tag(refer to claim 1), and one of the cells is reserved as an output cell for outputting a result of the processing (refer to claim 1);

means for parsing the specification to determine an interdependency of the plurality of cells and generating and storing a graph of the interdependency (refer to claim 1) as an execution flow; and

means for executing the specification in accordance with the execution flow (refer to claim 1), wherein the executing comprises evaluating the formula of each cell in the execution flow and generating an output result (refer to claim 1);

wherein each cell is interlocked with at least one other cell through the formula or attribute of each cell (refer to claim 1).

W3C does not explicitly disclose graph of interdependency as a directed graph; but this ‘directed graph’ limitation has been addressed in claim 1.

Response to Arguments

4. Applicant's arguments filed 4/23/2010 have been fully considered but they are not persuasive. Following are the Examiner's observation in regard thereto.

(A) Applicants have submitted that the Office Action is not clear about what exactly constitutes ‘cell’ as recited, as ‘cell’ is certainly not the cited ‘template’ from W3C (Applicant's Remarks pg. 7 bottom, pg. 8 top). It is well recognized from the markup construction in W3C that a cell is one surrounded by end tags; and a template as cited presents at least one such cell.

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Besides, the examples shown in the present Application Disclosure evidence the exact same cells constructed with end tags as those in W3C 'template' (see Specifications, pg. 7 bottom; see W3C: sec 5.3). The argument is no convincing.

(B) Applicants have submitted that the cited sec 5.4 by the Office Action does not disclose cell having a 'formula', nor does secs 11.2-11.6 (by W3C) disclose formula that 'reference a value of a second cell', nor do secs 7.6.1, 11.6 (by W3C) disclose beginning tags and end tags for defining a cell (Applicant's Remarks pg. 8). It is noted that all the cited portions match the language as claimed; since each formula cited in W3C XSL-based "cell" include an operation that require resolving a value that is found in another cell distinct from the cell containing the tagged cell's operation (e.g. sec 7.6.1: value-of select =), which is also depicted in the Applicants' Specifications (see <x: value-of select=\$input ... > middle pg. 10). The arguments are therefore not convincing in all counts.

(C) Applicants have submitted that 'reserved' cells for outputting a result is not found as having a proper disclosure by the Office Action using W3C; nor is there disclosure by the Office action about 'interlocked ... with other cell through the formula' (Applicant's Remarks, bottom pg. 8, top pg. 9). The "interlocked" relationship, inter-dependency or binding between one cell and another cell in XSL language (e.g. use of formula: 'value-of select=') such as variable-binding via a formula entails that the value for a variable in one cell defined as a *param* or *variable* can be resolved or produced by such formula defined in another cell where the produced value is defined as a \$ place holder with the formula (see W3C: sec 11.1--> 11.5). Also, the 'reserved' cell as claimed in claim 7 is not provided with specific details as to what exactly 'reserved' is all about, and since W3C implements a cell tag as output (W3C: sec 16.2), it is

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deemed that such tagged `</xsl: output ... />` cell fulfills the reserved nature of a cell defined for 'output', necessarily when the exact language of the claim such as "specifying output of the data processing specified by the data processing specification" does not teach anything particularly compelling so as to distinguish it over the `<output ... />` as cited. The arguments are insufficient to negate the analogous teaching by the cited portions.

In all, the claims stand rejected and the cited portions in W3C reflect reasonably the requirement of the claimed invention, and particularly so, to the extension that they also map well with the examples shown in the present Disclosure.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

July 08, 2010